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AMENDMENTS TO THE CLAIMS

1. (Original) A light modulator, comprising:
an array comprising rows and columns of interferometric display elements, each element being divided into sub-rows of one or more sub-elements;
array connection lines to transmit operating signals to the display elements, wherein one connection line corresponds to one row of display elements in the array;
sub-array connection lines electrically connected to each array connection line;
and
switches to transmit the operating signals from each array connection line to the sub-rows to effect image data modulation.
2. (Currently Amended) The light modulator of claim 1, ~~multiple~~ wherein said one or more sub-elements further ~~comprising~~ comprise a sub-element in each row for red, green and blue.
3. (Currently Amended) The light modulator of claim 1, wherein said array column connection lines further ~~comprising~~ comprise three column connection lines, one each for red, green and blue sub-elements in each element.
4. (Currently Amended) The light modulator of claim 1, wherein the switches further comprise ~~comprising~~ microelectromechanical switches.
5. (Currently Amended) The light modulator of claim 1, wherein the switches further comprise ~~comprising~~ switches of a similar configuration as the interferometric display elements.
6. (Currently Amended) The light modulator of claim 1, wherein the switches further comprise ~~comprising~~ the sub-elements such that when a selected sub-element is deflected, the selected sub element causes the operating signal from the array connection line to transfer from the selected sub-element to an adjacent sub-element.
7. (Currently Amended) The light modulator of claim 1, wherein the switches further comprise ~~comprising~~ semiconductor transistor switches
8. (Original) A method of manufacturing an interferometric light modulator, the method comprising:
providing an array of interferometric display elements arranged in rows and columns, each display element comprising:

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a predetermined number of sub-rows of sub-elements, wherein the predetermined number of sub-rows depends upon a desired bit-depth for a display; and

a predetermined number of sub-columns within each sub-row, wherein the predetermined number of sub-columns corresponds to a desired number of colors for the display;

arranging array connection lines for each row, such that each connection line corresponds to one row of the array; and

providing electrical connection between the array connection line for each row to one of the sub-rows of the corresponding row of the array.

9. (Currently Amended) The method of claim 8, wherein said arranging array connection lines for each row further comprises ~~comprising~~ arranging array connection lines between the array and a driver device.

10. (Currently Amended) The method of claim 8, wherein said providing electrical connection between the array connection line further comprises ~~comprising~~ providing connection to a set of microelectromechanical switches.

11. (Currently Amended) The method of claim 8, wherein said providing electrical connection between the array connection line further comprises ~~comprising~~ providing connection to a set of semiconductor switches.

12. (Currently Amended) The method of claim 10, wherein the microelectromechanical switches further comprise ~~comprising~~ switches of a similar configuration as the interferometric display elements.

13. (Currently Amended) The method of claim 8, wherein said providing electrical connection further comprise ~~comprising~~ deflecting a sub-element of a sub-row, thereby forming a connection between the sub-element and an adjacent sub-element.

14. (Previously Presented) A light modulator, comprising:

an array of interferometric display elements arranged in rows and columns, each element comprising a predetermined number of sub-elements, wherein the number of sub-elements is determined by a desired bit depth and each element is approximately the same size; and

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an array connection line corresponding to each row of display elements, wherein each array connection line is electrically connected to a sub-element in each display element;

wherein at least one sub-element is configured to selectively form an electrical connection connecting said array connection line to at least one other sub-element.

15. (Currently Amended) A light modulator, comprising:

an array of interferometric display elements arranged in rows and columns, each element comprising a predetermined number of sub-elements, wherein the number of sub-elements is determined by a desired bit depth and each element is approximately the same size;

electrical connections between the sub-elements such that the electrical connections form a sub-element cascade; and

an array connection line corresponding to each row of display elements, wherein each array connection line is electrically connected to a sub-element in each display element;

wherein each element comprises a predetermined number of sub-element sub-elements cascades, and the predetermined number of cascades corresponds to the number of colors in the element.

16. (Previously presented) A light modulator, comprising:

an array of interferometric display elements arranged in rows and columns, each element comprising a predetermined number of sub-elements, wherein the number of sub-elements is determined by a desired bit depth and each element is approximately the same size;

electrical connections between the sub-elements such that the electrical connections form a sub-element cascade;

an array connection line corresponding to each row of display elements, wherein each array connection line is electrically connected to a sub-element in each display element; and

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addressing circuitry to provide an addressing pulse to each sub-element cascade, wherein a number of sub-elements in the cascade that become active depends upon a length of the addressing pulse.

17. (Previously Presented) A method of manufacturing a light modulator, comprising:
providing an array of interferometric display elements arranged in rows and columns, each element comprising at least one sub-element cascade of a predetermined number of sub-elements, such that at least one sub-element is configured to selectively form an electrical connection connecting said array connection line to at least one other sub-element; and

electrically connecting a first element in each sub-element cascade in a row to a corresponding connection line for that row.

18. (Currently Amended) A method of manufacturing a light modulator, comprising:
providing an array of interferometric display elements arranged in rows and columns, each element comprising at least one sub-element cascade for each of a desired color comprising a predetermined number of sub-elements; and

electrically connecting a first element in each sub-element cascade in a row to a corresponding connection line for that row; ~~and~~

~~providing an array of interferometric elements having at least one sub-element cascade further comprising providing a sub-element cascade for each desired color.~~

19. (Previously presented) The method of claim 17, further comprising electrically connecting the connection lines for each row to a driver device.

20. (Previously Presented) A light modulator, comprising:

an array of interferometric elements, each element comprising a pre-determined number of sub-elements, each sub-element comprising a single movable layer having a surface area, wherein the surface area corresponds to a different binary weight of display information, and wherein the number of sub-elements depends upon a desired bit depth.

21. (Previously Presented) The light modulator of claim 20, wherein at least one interferometric element comprises four sub-elements, a first sub-element of a size approximately one half the size of said at least one element, a second sub-element of a size approximately one fourth the size of said at least one element and third sub element of a size approximately one

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eighth the size of said at least one element and a fourth sub-element of a size approximately one sixteenth the size of said at least one element.

22. (Previously presented) The light modulator of claim 20, further comprising a connection line for each of the sub-elements.

23. (Previously presented) A light modulator, comprising:

an array of interferometric elements, each element comprising a pre-determined number of sub-elements, wherein one or more of the sub-elements are of a different size corresponding to a different binary weight of display information, wherein the number of sub-elements depends upon a desired bit depth; and

one connection line for each display element, and a set of switches electrically connected between the display element and the sub-elements, wherein the light modulator is configured such that sub-elements needed to create a weighting of a pixel are activated in accordance with display information.

24. (Previously Presented) A method of manufacturing a light modulator, the method comprising:

providing an array of interferometric display elements;

forming sub-elements within each display element of a size approximately equal to one half the display element; and

forming additional sub-elements as desired, each additional sub-element having a movable layer having a surface area approximately equal to half the surface area of a next largest movable layer of another sub-element.

25. (Previously presented) The method of claim 24, further comprising forming a connection line for each sub-element.

26. (Previously presented) The method of claim 24, further comprising forming a connection line for each display element and providing multiplexing switches in electrical connection between the connection line and the sub-elements.

27-31. (Canceled)

32. (Previously Presented) The light modulator of Claim 20, wherein the movable layer comprises a mirror.

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33. (Previously Presented) The method of Claim 24, wherein the movable layer comprises a mirror.